CLAIMS

We claim:

1. A method in a computer network for managing purchase transactions for the Web sites of a plurality of merchants using a transaction network, comprising the steps of:

for each of the plurality of merchant Web sites, under the control of the merchant Web site:

displaying items available for purchase, each item having a price;

receiving user input from users using Web clients selecting items for purchase; and

for each item selection, forwarding a purchase request to the transaction network indicating the price of the selected item;

under the control of the transaction network:

receiving transaction network purchase requests forwarded from the plurality of merchant Web sites;

for each received purchase request:

discerning the identity of the user; and

generating a pending transaction record indicating the identity of the user, the price of the selected item, and the identity of the forwarding Web site;

periodically determining, for each user whose identity is indicated by a pending transaction record, the sum of the prices of the pending transaction records indicating the identity of the user;

where the determined sum for a user exceeds a billing threshold, submitting to a payment processor a request for settlement for the determined sum against an account of the user;

receiving settlement indications from the payment processor each indicating payment of an identified submitted a request for settlement;

32

27   for each received settlement indication, for each transaction

28 record whose price is included in the sum of the billing transaction identified by the

29 received settlement indication:

30   crediting an account of the merchant identified by the

31 transaction record; and

32   removing the pending status of the transaction record.

1   2.   A method in one or more computer systems for procuring

2 payment for purchase transactions each originating with a particular user and vendor,

3 comprising the steps of:

4   receiving purchase requests each originating at one of a plurality of

5 vendor Web sites, each purchase request indicating a purchase price;

6   for each received purchase request:

7   discerning the identity of a user with which the purchase request

8 originated; and

9   storing a pending transaction record indicating the identity of the

10 user, the purchase price, and the identity of the vendor at whose Web site the purchase

11 request originated;

12   periodically determining, for each user whose identity is indicated by a

13 pending transaction record, the sum of the prices of the pending transaction records

14 indicating the identity of the user;

15   where the determined sum for a user exceeds a billing threshold,

16 submitting to a payment processor a billing transaction for the determined sum against

17 an account of the user;

18   receiving settlement indications from the payment processor each

19 indicating payment of an identified submitted billing transaction;

20   for each received settlement indication, for each transaction record

21 whose price is included in the sum of the billing transaction identified by the received

22 settlement indication:

23   crediting an account of the vendor identified by the

24   transaction record; and

25   removing the pending status of the transaction record.

1   3.   One or more computer memories collectively containing a data

2   structure for purchasing items from different vendors, the data structure comprising:

3   a first Web page, under the control of a first vendor, containing

4   information describing a first item and a first link to a purchasing system not under the

5   control of the first vendor, the first link activatable by users to purchase the first item:

6   a second Web page, under the control of a second vendor distinct from

7   the first vendor, containing information describing a second item and a second link to

8   the purchasing system, the purchasing system also not under the control of the second

9   vendor, the second link activatable by users to purchase the second item;

10   instructions stored in a purchasing system, the instructions responding to

11   the activation of the first link by:

12   identifying the user activating the first link;

13   establishing an account for the identified user if one has not yet

14   been established;

15   causing the purchase of the first item to be posted to the account

16   of the identified user; and

17   providing the first item to the identified user,

18   the instructions responding to the activation of the second link by:

19   identifying the user activating the second link;

20   establishing an account for the identified user if one has not yet

21   been established;

22   causing the purchase of the second item to be posted to the

23   account of the identified user; and

24   providing the second item to the identified user.

1   . 4.   The computer memories of claim 3 wherein the instructions

2   stored on the purchasing system are provided in an active server object.

1   5.   A method in a computer system for generating payment requests

2   incorporating multiple purchase transactions, comprising the steps of:

3   receiving purchase transaction indications, each purchase transaction

4   indication indicating an amount and identifying one of a plurality of customers;

5   for each customer:

6   periodically determining the sum of the amounts of the received

7   purchase transaction indications identifying the customer that have not been

8   incorporated in a payment request; and

9   when the determined sum exceeds a billing threshold, generating

10   a new payment request for the customer in the amount of the sum that incorporates the

11   received purchase transaction indications identifying the customer that have not been

12   incorporated in a payment request.

1   6.   The method of claim 5 wherein the receiving step receives

2   purchase transaction indications from a number of different vendors often whom the

3   customers have made purchases.

1   7.   The method of claim 6, further comprising the steps of:

2   for each vendor, collecting transaction indications indicating transactions

3   entered into with the vendor; and

4   retrieving the collected transaction indications from each vendor.

1   8.   . The method of claim 5 wherein the generating step generates

2   settlement requests, and wherein the method further comprises the step of transmitting

3   generated settlement requests to a payment processor for settlement.

1   .   9.   A computer-readable medium whose contents cause a computer

2 system to generate billing transactions incorporating multiple purchase transactions by

3 performing the steps of:

4   receiving purchase transaction indications, each purchase transaction

5 indication indicating an amount and identifying one of a plurality of customers; and

6   for each customer:

7   periodically determining the sum of the amounts of the received

8 purchase transaction indications identifying the customer that have not been

9 incorporated in a billing transaction; and

10   when the determined sum exceeds a billing threshold, generating

11 a new billing transaction for the customer in the amount of the sum that incorporates the

12 received purchase transaction indications identifying the customer that have not been

13 incorporated in a billing transaction.

1   10.   The computer-readable medium of claim 9 wherein the receiving

2 step receives purchase transaction indications from a number of different content

3 providers with whom the customers have entered into purchase transactions.

1   11.   A   computer   system   for   generating   billing   transactions

2 incorporating multiple purchase transactions, comprising:

3   a receiver that receives purchase transaction indications, each purchase

4 transaction indication indicating an amount and identifying one of a plurality of

5 customers;

6   an adder that, for each customer, periodically determines the sum of the

7 amounts of the received purchase transaction indications received by the receiver that

8 identify the customer that have not been incorporated in a billing transaction; and

9   a billing transaction generator that, when the sum determined by the

10 adder exceeds a billing threshold, generates a new billing transaction for the customer in

11   the amount of the sum that incorporates the received purchase transaction indications

12   identifying the customer that have not been incorporated in a billing transaction.

1   12.   A method in a computer system for aggregating charge

2   transactions entered into by a customer, the method comprising the steps of:

3   over time, receiving a stream of charge transactions entered into by the

4   customer, each charge transaction having an amount;

5   identifying a time at which the sum of the amounts of the received

6   charge transactions exceeds a threshold amount; and

7   submitting to a payment processor a payment request for the sum of the

8   received charge transactions.

1   13.   The method of claim 12 wherein one of the received charge

2   transactions was entered into in conjunction with a third-party vendor, further

3   comprising the steps of:

4   receiving from the payment processor, in response to the submitting step,

5   a settlement indication indicating payment of the submitted payment request; and

6   in response to the step of receiving a settlement indication, crediting to

7   the vendor a portion of the sum.

1   14.   A computer-readable medium whose contents cause a computer

2   system to process charge transactions entered into by a customer by performing the

3   steps of:

4   receiving a stream of charge transactions entered into by the customer,

5   each charge transaction having an amount;

6   identifying a time at which the sum of the amounts of the received

7   charge transactions exceeds a threshold amount; and

8   submitting to a payment processor a settlement request for the sum of the

9   received charge transactions.

15. The computer-readable medium of claim 14 wherein one of the received charge transactions was entered into in conjunction with a third-party vendor, and wherein the contents of the computer-readable medium further cause the computer system to perform the steps of:

receiving from the payment processor, in response to the submitting step, a payment indication indicating payment of the submitted settlement request; and

in response to the receiving step, crediting to the vendor a portion of the sum.

16. A computer memory device storing a charge aggregation data structure for storing information about charge transactions directed to a particular form of payment, the form of payment having a minimum threshold for charges against the form of payment, the data structure comprising a plurality of records each representing a distinct charge transaction, each record indicating an amount for the transaction it represents, at least some of the records indicating amounts below the minimum threshold for the form of payment, such that the data structure may be accessed to combine a plurality of the charge transactions into a single aggregate transaction having an amount corresponding to the combined amounts indicated by the records that is in excess of the minimum threshold, such that the aggregate transaction may be charged against the form of payment.

17. The computer memory device of claim 16 wherein the form of payment is a credit card.

18. The computer memory device of claim 16 wherein the form of payment is a debit card.

19. The computer memory device of claim 16 wherein the form of payment is an automated clearing house payment.

38

1   .20.   The computer memory device of claim 16 wherein the form of

2 payment is an electronic funds transfer transaction.

1   21.   The computer memory device of claim 16 wherein the form of

2 the payment is a purchase order.

1   22.   The computer memory device of claim 16 wherein each record of

2 the data structures identifies one of a plurality of customers as having entered into the

3 transaction represented by the record,

4 such that the data structure may be accessed to combine a plurality of the charge

5 transactions into a plurality single aggregate transactions each corresponding to a single

6 customer.

1   23.   A memory device storing an aggregate charge data structure, the

2 aggregate charge data structure being suitable for submission to a payment processor for

3 payment, the data structure comprising:

4   a consumer identifier identifying a consumer that has charged a

5 multiplicity of purchase transactions, each purchase transaction having an amount: and

6   an aggregate charged amount constituting the sum of the amounts of a

7 constituent plurality of the multiplicity of purchase transactions charged by the

8 consumer, at least one of the amounts of the constituent purchase transactions falling

9 below a minimum threshold for submitting charges to a payment processor for payment,

10 such that the data structure may be submitted to a payment processor for payment in

11 place of the constituent purchase transactions.

1   24.   The memory device of claim 23 wherein the data structure further

2 comprises both a consumer identifier and aggregate charged amount for each of a

3 plurality of additional consumers.

1   . 25.   A method in a computer system for identifying a user using a user

2 computer system among a group of users, the method using a potentially non-unique

3 member identifier, the method comprising the steps of:

4   (a) registering the user by:

5   (1) obtaining for the user a member identifier that is potentially

6 not unique;

7   (2) after obtaining the solicited member identifier in step (a)(1),

8 storing a unique identifier for the user on the user computer system in conjunction with

9 the obtained member identifier; and

10   (b) identifying the user by:

11   (1) soliciting from the user the member identifier of the user;

12   (2) receiving from the user, in response to step (b)(1), the

13 member identifier of the user;

14   (3) reading from the user computer system the unique identifier

15 stored in conjunction with the member identifier received in step (b)(2);

16   (4) identifying the user using the unique identifier read in step

17 (b)(3).

1   26.   The method of claim 25 wherein a plurality of users having the

2 same user computer system are registered by repeating steps (a)(1)-(a)(2) for each of the

3 plurality of users.

1   27.   The method of claim 25 wherein obtaining step (a)(1) comprises

2 the steps of:

3   soliciting from the user a member identifier of the user; and

4   receiving from the user a member identifier of the user.

1   28.   The method of claim 25 wherein the method is practiced on

2 behalf of a first online service, and wherein obtaining step (a)(1) comprises the step of

3   obtaining for the user a member identifier used by the user to identify himself or herself

4   to second online service distinct from the first online service.

1   29.   The method of claim 28 wherein the step of obtaining for the user

2   a member identifier used by the user to identify himself or herself to second online

3   service obtains the member identifier from an operator of the second online service.

1   30.   A method in one or more computer systems for purchasing

2   products offered for sale by multiple vendors, comprising the steps of:

3   receiving a single, contiguous set of user interface interactions for

4   establishing the identity of the user;

5   establishing the identity of the user based on the single, contiguous set of

6   user interface interactions received in the receiving step;

7   purchasing an item offered for sale by a first vendor based on the user

8   identity established in the establishing step; and

9   purchasing an item offered for sale by a second vendor distinct from the

10   first vendor based on the user identity established in the establishing step.

1   31.   The method of claim 30, further comprising the steps of:

2   in conjunction with the step of purchasing an item offered for sale by a

3   first vendor, displaying a visual indication of the first vendor; and

4   in conjunction with the steps of purchasing an item offered for sale by a

5   second vendor, displaying a visual indication of the second vendor.

6   32.   The method of claim 30 wherein the receiving and establishing

7   steps are performed as part of the step of purchasing an item offered for sale by the first

8   vendor.

1   33.   The method of claim 30 wherein the second vendor has a

2   computer system. and wherein the establishing step includes the step of storing a central

3   state signifying the establishment of the identity of the user, and wherein the step of

4   purchasing an item offered for sale by the second vendor include the steps of:

5   checking the stored state;

6   in response to checking the stored state, sending an encoded ticket to the

7   second computer system;

8   under the control of the second computer system:

9   decoding the encoded ticket;

10   validating the decoded ticket; and

11   performing the step of purchasing an item offered for sale by the

12   second vendor in response to the validating step.

1   34.   The method of claim 30 wherein the establishing step includes

2   the step of storing a central state signifying the establishment of the identity of the user,

3   and wherein the step of purchasing an item offered for sale by a second vendor include

4   the steps of:

5   checking the stored central state; and

6   performing the step of purchasing an item offered for sale by a second

7   vendor in response to the checking step.

1   35.   A method in one or more computer systems for accessing

2   multiple access-restricted Web sites, comprising the steps of:

3   receiving a single, contiguous set of user interface interactions for

4   establishing the identity of the user;

5   establishing the identity of the user based on the single, contiguous set of

6   user interface interactions received in the receiving step;

7   granting access to a first access-restricted Web site based on the user

8   identity established in the establishing step; and

9   granting access to a second access-restricted Web site distinct from the

10   second access-restricted Web site based on the user identity established in the

11   establishing step.

1 . 36. The method of claim 35, wherein the second access-restricted
2 Web site is served by a second computer system, and wherein the establishing step
3 includes the step of storing a state signifying the establishment of the identity of the
4 user, and wherein the step of granting access to the second access-restricted Web site
5 include the steps of:
6 checking the stored state;
7 in response to checking the stored state, sending an encoded ticket to the
8 second computer system;
9 under the control of the second computer system:
10 decoding the encoded ticket;
11 validating the decoded ticket; and
12 performing the step of granting access to the second access-
13 restricted Web site in response to the validating step.

1 37. The method of claim 35 wherein the establishing step includes
2 the step of storing a central state signifying the establishment of the identity of the user,
3 and wherein the step of granting access to the second access-restricted Web site include
4 the steps of:
5 checking the stored central state; and
6 performing the step of granting access to the second access-restricted
7 Web site in response to the checking step.

1 38. A transaction network for vending digital content from a plurality
2 of merchants comprising:
3 for each merchant, a transaction engine for conducting transactions with
4 customers to purchase digital content and deliver purchased digital content; and
5 a network service center for collecting indicia of transactions entered
6 into with each merchant and submitting payment requests for the collected transactions
7 to a payment processor.

1   39.   The transaction network of claim 38 wherein the network service

2 center aggregates the transactions conducted with each customer, and wherein the

3 payment requests are submitted for the aggregated transactions.

1   40.   The transaction network of 39 wherein the network service center

2 further receives from the payment processor indications of the payment of the submitted

3 payment requests, and, for each received indication, credits the merchants with which

4 the transactions aggregated into the request where conducted.

1   41.   A method in one or more computer systems for providing to a

2 customer automatic refund support for a purchase transaction, the method comprising:

3   generating for the customer a display soliciting information supporting a

4 request for refund of the purchase transaction;

5   receiving from the customer, in response to the generated display,

6 information supporting a request for refund; and

7   automatically generating a request for refund incorporating the received

8 information,

9 such that the customer requests a refund of the purchase transaction without additional

10 interaction.

1   42.   The method of claim 41, further comprising the steps of:

2   generating for the customer a display containing indicators of each of a

3 plurality of transactions entered into by the customer, at least two of the plurality of

4 transaction being entered into with different merchants; and

5   receiving from the customer a selection of the transaction indication of a

6 selected transaction,

7 and wherein the step of generating a display soliciting information to support a request

8 for refund of a service transaction generates a display soliciting information to support a

9 request for refund of the selected transaction.

43. The method of claim 41 wherein the transaction has an amount, the method further comprising the steps of:

determining whether the amount of the transaction is less than a maximum threshold; and

if the amount of the transaction is less than the maximum threshold, automatically granting the requests for refund.

44. The method of claim 43, further comprising the step of, if the amount of the transaction is not less than the maximum threshold, determining whether to grant the request for refund based upon the information supporting the request for refund.

45. A method in one or more computer systems for enabling a subscriber to manage content subscriptions from a plurality of content sources, the method comprising:

displaying for the subscriber an indication of each of a plurality of content subscriptions entered into by the subscriber, at least two of the content subscriptions being with different content sources;

receiving from the subscriber a selection of the indication of a selected content subscription; and

on behalf of the subscriber, performing a subscription management operation with respect to the selected content subscription.

46. The method of claim 45 wherein the performing step cancels the selected content subscription.

47. The method of claim 45 wherein the performing step renews the selected content subscription.

48. A method in one or more computer systems for providing a plurality of purchasing accounts for purchasing digital content, all of the purchasing accounts of the plurality being associated with a single payment account, the method comprising:

storing payment information for the payment account that is usable to procure payment for digital content purchases made using any of the plurality of purchasing accounts;

storing for each of the purchasing accounts a different account identifier;

in response to each purchase request specifying content received in connection with the account identifier of one of the purchasing accounts:

completing a purchase of the specified content, and

providing the specified content; and

utilizing the payment information stored for the payment account to procure payment for digital content purchases completed using any of the plurality of purchasing accounts.

49. The method of claim 48, further comprising the steps of:

storing an account identifier for the payment account; and

in response to a request received in connection with the account identifier for the payment account, displaying information describing the purchases completed using any of the plurality of purchasing accounts.

50. The method of claim 48, further comprising the step of, in response to a request received in connection with the account identifier for a selected one of the purchasing accounts, displaying information describing the purchases made completed using only the selected purchasing account.